UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,011	03/26/2004	Daniele Micci-Barreca	025213-9139-00	8994

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EXAMINER
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ART UNIT	PAPER NUMBER
3692	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/811,011	MICCI-BARRECA, DANIELE
	Examiner	Art Unit
	LINDSAY M. MAGUIRE	3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 February 2008</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-96</u> is/are pending in the application.

    4a) Of the above claim(s) <u>29-32 and 61-96</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-28 and 33-60</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>2/9/06</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20080403

DETAILED ACTION

This Non-Final Office Action is in response to the application filed on March 26,

2004 and the response to the Election/Restriction requirement filed on February 26,

2008.

Election/Restrictions

Claims 29-32 and 61-96 are withdrawn from further consideration pursuant to 37

CFR 1.142(b) as being drawn to a nonelected groups II - IV, there being no allowable

generic or linking claim. Election was made **without** traverse in the reply filed on

February 26, 2008.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 13-23, 25, 27, 28, 33-40, 45-55, 57, 59, and 60 are rejected under 35

U.S.C. 102(b) as being anticipated by U.S. PGPub. No. 2002/0099649 (Lee et al. '649).

With respect to claims 1-8 and 33-40, Lee et al. '649 disclose a method/system

performed by an information handling system ("IHS"), the method comprising: in

response to a plurality of rules having respective weights, determining whether a

financial transaction request is likely fraudulent (abstract). Additionally Lee et al. '649

disclose adjusting the weights in response to a command from a user (paragraphs

[0075, 0210 - 0214]); wherein the financial transaction request is a first financial

transaction request, and comprising: in response to determining whether the first

financial transaction request is actually fraudulent, adjusting the weights for determining

whether a second financial transaction request is likely fraudulent (paragraphs [0045],

[0066], & [0115]; i.e. in order to learn the pattern of transactions, first transactions must

be made to have something to compare the second transactions to); wherein the IHS is

a first IHS, and comprising: receiving the financial transaction request from a second

HIS (104, 110; see Figures 1 & 2); wherein receiving the financial transaction request

comprises: receiving the financial transaction request from the second IHS through a

global computer network (paragraph [0139]); and to the second IHS through the global

computer network, outputting an indication of whether the financial transaction request

is likely fraudulent (paragraphs [0342 – 0348]). Lee et al. '649 further disclose that the

financial transaction request includes information about a financial account that is

associated with the financial transaction request (paragraph [0043]); and, wherein the

determining comprises: in response to the information about the financial account, and

in response to information about a financial transaction that is associated with the

financial transaction request, determining whether the financial transaction request is

likely fraudulent (paragraph [0043]).

Regarding claims 13-23, 25, 27, 28, 45-55, 57, 59, and 60, Lee et al. '649

disclose a method/system performed by an information handling system ("IHS"), the

method comprising: determining whether a first financial transaction request is actually

fraudulent; and in response to determining whether the first financial transaction request

is actually fraudulent, adjusting respective weights of a plurality of rules for determining

whether a second financial transaction request is likely fraudulent (abstract; paragraphs

[0045, 0066, 0075, 0115, 0210-0214]). Additionally, Lee et al. '649 disclose that in

response to the weights and rules, determining whether the second financial transaction

request is likely fraudulent (paragraphs [0045], [0066], & [0115]; i.e. in order to learn the

pattern of transactions, first transactions must be made to have something to compare

the second transactions to); determining whether the second financial transaction

request is actually fraudulent; and in response to determining whether the second

financial transaction request is actually fraudulent, adjusting the weights for determining

whether a third financial transaction request is likely fraudulent (paragraphs [0045,

0066, 0075, 0115]); wherein the IHS is a first IHS, and comprising: receiving the second

financial transaction request from a second HIS (104, 110, Figures 1 and 2); wherein

receiving the second financial transaction request comprises: receiving the second

financial transaction request from the second IHS through a global computer network

(paragraph [0139]); and to the second IHS through the global computer network,

outputting an indication of whether the second financial transaction request is likely

fraudulent (paragraphs [0342-0348]). Lee et al. '649 further disclose that the first

financial transaction request is actually non-fraudulent (paragraphs [0036, 0037, 0043];

i.e. the transactions that are used to develop the history of purchases); wherein the first

financial transaction request is actually fraudulent (paragraphs [0036, 0037, 0043]; i.e.

the first transaction made to a particular merchant that doesn't fit the users profile);

wherein the first financial transaction request includes information about a financial

account that is associated with the first financial transaction request (paragraph [0043]);

adjusting the weights in response to a command from a user (paragraphs [0075, 0210-

0214]); wherein adjusting the weights comprises: adjusting the weights to improve a

predictive accuracy of the weights (paragraphs [0075, 0210-0214]); and in response to

determining whether the first financial transaction request is actually fraudulent,

adjusting a threshold to improve a predictive accuracy of the threshold; and in response

to the weights and rules, determining a score that indicates whether the second

financial transaction request is likely fraudulent, and applying the threshold to the score

for determining whether the second financial transaction request is likely fraudulent

(paragraphs [0064-0067]).

Additionally, Lee et al. '649 disclose that in response to determining whether the

first financial transaction request is actually fraudulent, adjusting a threshold to improve

a predictive accuracy of the threshold; and in response to the weights and rules,

determining a score that indicates whether the second financial transaction request is

likely fraudulent, and applying the threshold to the score for determining whether the

second financial transaction request is likely fraudulent (paragraphs [0064-0067]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9-12, 24, 26, 41-44, 56 and 58 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Lee et al. '649 as applied to claims 1-8, 13-23, 25, 27, 28, 33-

40, 45-55, 57, 59, and 60 alone.

Lee et al. '649 discloses the method substantially as claimed, as advanced

above, with the exception of requiring: (a) that the rules include a positive rule that, if

satisfied, indicates that the financial transaction request has an increased likelihood of

being non-fraudulent (claim 9, lines 1-3; claim 11, lines 2-3; claim 41, lines 1-3; claim

43, lines 2-3); (b) that the rules include a negative rule that, if satisfied, indicates that the

financial transaction request has a reduced likelihood of being non-fraudulent (claim 10,

lines 1-2; claim 11, lines 4-5; claim 10, lines 1-2; claim 43, lines 4-5); (c) that a value of

the positive rule's weight is variable between zero and a number having a first +/- sign;

and a value of the negative rule's weight is variable between zero and a number having

a second +/- sign opposite of the first +/- sign (claim 12, lines 1-5; claim 44, lines 1-5);

and (d) wherein adjusting the weights comprises: adjusting the weights in response to a

gradient descent algorithm (claim 24, lines 1-2; claim 26, lines 1-2; claim 56, lines 1-3;

claim 58, lines 1-3).

Regarding (a) - (c), Lee et al. '649 does disclose that there are a plurality of rules, and that the merchants can, "write policies formulated as computational rules that become active within the rules engine.....the merchants define, edit, delete any rule it desires...the rules enables the merchant's fraud-risk prediction system to automatically determine actions based on fraud scores..." (paragraph [0075]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the merchant could make a positive rule that indicates non-fraudulent activities and a negative rule that indicates fraudulent activities for the basic reason creating rules that work best for the user. Additionally, Lee et al. '649 disclose that the rules can be changed however the user sees fit, which would include editing the rule's weight value of both positive and negative rules to include sign changes for the obvious reason of allowing the user to customize the system to their use.

With respect to (d), Lee et al. '649 does disclose the use of a multi-keyed algorithm to identify a buyer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that a gradient descent algorithm could be used to adjust the weights for the basic reason of wanting to avoid user error.

Conclusion

Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts of disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINDSAY M. MAGUIRE whose telephone number is (571)272-6039. The examiner can normally be reached on M-F: 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lindsay M. Maguire   /Kambiz Abdi/
4/8/08   Supervisory Patent Examiner, Art
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